

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

Claim 1 - 5 (Cancelled)

Claim 6 (Currently Amended): An electronic commercial transaction supporting system, comprising:

a shop, connected to a network, configured to present which presents merchandise to customers via the network; and

a business information management system connected to the network,

wherein said shop includes:

a correspondence generating unit ~~which specifies~~ configured to specify correspondence relations between attributes that are objects of interest for a plurality of respective subjects in an electronic commercial transaction at an actual stage of the transaction, based on an equivalence relation which satisfies a reflexive law, a symmetric law and a transitive law, the correspondence generating unit ~~extracting~~ also configured to extract, by a cellular decomposition operation, one or more of the specified correspondence relations as a common subspace satisfying a necessary condition for concluding the electronic commercial transaction by decomposing a set of attributes into nonempty disjoint equivalence classes according to the equivalence relation;

a table which records configured to record the extracted correspondence relations; and

a correspondence presenting unit ~~which presents~~ configured to present to the subjects in the transactions in a manner such that the common subspace satisfying a necessary condition for concluding the electronic commercial transaction is attached to cellular spaces corresponding to the subjects in the transactions by a cell attaching operation,

wherein, under the equivalence relation, the correspondence generating unit is configured to specify specifies a correspondence relation between search keywords which the customer gave at the time of search for a desired merchandise, and information, utilized by the customer, among information on the merchandise presented by said shop as a result of search, and is configured to inspect a history of transactions to determine whether the specified correspondence is a new correspondence relation, in which case if the specified correspondence is found to be a new correspondence relation, that does not exist before, by inspecting history of the transactions, then the search keywords are corresponded to the information utilized by the customer among information on the merchandise, as a new attribute and recorded in the table,

wherein the correspondence presenting unit ~~reads out and presents~~ is configured to read out and present the correspondence relations stored in the table at a stage of another transaction, and

wherein said business information management system includes a functional block ~~which transversely refers~~ configured to refer transversely to [[said]] respective tables of [[that]] a plurality of [[said]] shops [[have]].

Claim 7 (Currently Amended): A system according to Claim 6, wherein said business information management system further includes a second functional block ~~which detects desired one from the correspondence relations~~ configured to detect a desired correspondence relation from said correspondence relations recorded in the table of any of said plurality of shops.

Claim 8 (Currently Amended): A system according to Claim 7, wherein said business information management system further includes a third functional block ~~which presents configured to present~~ the detected desired correspondence relation at [[to]] an actual stage of an electronic commercial transaction at another shop.

Claim 9 (Currently Amended): A system according to Claim 6, wherein [[in]] said shop further includes there is provided a local business information management block which manages configured to manage the table.

Claim 10 (Currently Amended): A system according to Claim 7, wherein [[in]] said shop further includes there is provided a local business information management block which manages configured to manage the table.

Claim 11 (Currently Amended): A system according to Claim 8, wherein [[in]] said shop further includes there is provided a local business information management block which manages configured to manage the table.

Claim 12 (Currently Amended): A system according to Claim 9, wherein said local information management block includes a maintaining functional block ~~which inspects~~ configured to inspect accumulating correspondence relations and to suitably modify ~~modifies~~ the correspondence relations.

Claim 13 (Currently Amended): A system according to Claim 10, wherein said local information management block includes a maintaining functional block ~~which inspects~~ configured to inspect accumulating correspondence relations and to suitably modify ~~modifies~~ the correspondence relations.

Claim 14 (Currently Amended): A system according to Claim 11, wherein said local information management block includes a maintaining functional block ~~which inspects~~ configured to inspect accumulating correspondence relations and to suitably modify ~~modifies~~ the correspondence relations.

Claim 15 (Currently Amended): A system according to Claim 12, wherein said maintaining functional block ~~detects~~ is configured to detect mutually-contradicting correspondence relations [[ones]] among the accumulated correspondence relations and ~~keeps~~ one side ~~thereof that is more appropriate like while other side thereof is deleted~~ to keep the more appropriate correspondence relation while deleting the other correspondence relation from the table.

Claim 16 (Currently Amended): A system according to Claim 13, wherein said maintaining functional block ~~detects~~ is configured to detect mutually-contradicting correspondence relations [[ones]] among the accumulated correspondence relations and ~~keeps one side thereof that is more appropriate like while other side thereof is deleted~~ to keep the more appropriate correspondence relation while deleting the other correspondence relation from the table.

Claim 17 (Currently Amended): A system according to Claim 14, wherein said maintaining functional block ~~detects~~ is configured to detect mutually-contradicting correspondence relations [[ones]] among the accumulated correspondence relations and ~~keeps one side thereof that is more appropriate like while other side thereof is deleted~~ to keep the more appropriate correspondence relation while deleting the other correspondence relation from the table.

Claim 18-20 (Cancelled)

Claim 21 (New): A computer medium comprising instructions which, when executed by a computer, cause the computer to:

specify correspondence relations between attributes that are objects of interest for a plurality of respective subjects in an electronic commercial transaction at an actual stage of the transaction, based on an equivalence relation which satisfies a reflexive

law, a symmetric law and a transitive law, wherein the specifying comprises, specifying a correspondence relation between search keywords which a customer gave at the time of search for a desired merchandise, and information, utilized by the customer, among information on the merchandise presented by a shop as a result of search, and also comprises inspecting a history of transactions to determine whether the specified correspondence is a new correspondence relation, in which case the search keywords are corresponded to the information utilized by the customer among information on the merchandise, as a new attribute and recording the newly extracted correspondence relation in a table;

extract, by a cellular decomposition operation, one or more of the specified correspondence relations as a common subspace satisfying a necessary condition for concluding the electronic commercial transaction by decomposing a set of attributes into nonempty disjoint equivalence classes according to the equivalence relation;

reading out and presenting the correspondence relations stored in the table at a stage of another transaction; and

present results of the extraction to the subjects of another transaction in a manner such that the common subspace satisfying a necessary condition for concluding the electronic commercial transaction is attached by a cell attaching operation to cellular spaces corresponding to the subjects in the transactions.

Claim 22. (New): An electronic commercial transaction supporting method comprising:
receiving an initial set of attributes for a product;

receiving a customer query via a network, said query comprising a customer set of attributes;

presenting products to a customer based on said initial set of attributes and said customer set of attributes;

specifying correspondence relations between attributes from said customer set and said initial set based on an equivalence relation which satisfies a reflexive law, a symmetric law and a transitive law;

determining if any attributes of said customer set of attributes is a new attribute and recording said new attribute to form a revised set of attributes;

extracting, by a cellular decomposition operation, one or more of the specified correspondence relations as a common subspace satisfying a necessary condition for concluding the electronic commercial transaction by decomposing the revised set of attributes into nonempty disjoint equivalent classes according to the equivalence relation; and

repetitively:

receiving a subsequent customer query comprising a subsequent customer set of attributes;

presenting the subsequent customer with products based on said one or more of the specified correspondence relations by attaching said common subspace by a cell attaching operation to a cellular space corresponding to said customer query;

specifying correspondence relations between attributes from said subsequent customer set and said revised set based on an equivalence relation which satisfies a

reflexive law, a symmetric law and a transitive law;

determining if any attributes of said subsequent customer set of attributes is a new attribute and recording said new attribute to form a product set of attributes; and

extracting, by a cellular decomposition operation, one or more of the specified correspondence relations as a common subspace satisfying a necessary condition for concluding the electronic commercial transaction by decomposing the product set of attributes into nonempty disjoint equivalent classes according to the equivalence relation.